

ABSTRACT

Catalyst and solid component of catalyst for the (co)polymerization of ethylene, comprising titanium, magnesium, chlorine, a protic organo-oxygenated compound D_p and a neutral aprotic electron-donor compound D , in the following molar ranges: $Mg/Ti=1.0-50$; $D/Ti=1.0-15$; $Cl/Ti=6.0-100$; $D_p/D=0.05-3$; and a process for obtaining said component comprising the following steps in succession: (a) formation of a mixture and dissolution, in said electron donor aprotic compound D , of a magnesium chloride and a titanium compound having formula (II): $Ti^v(OR_3)_aX_{(v-a)}$ wherein each R_3 independently represents a hydrocarbyl or acyl radical having from 1 to 15 carbon atoms; each X is selected from chlorine, bromine or iodine; " v " has the value of 3 or 4, and " a " is a number varying from 0 to " v ", with a molar ratio between titanium and magnesium ranging from 1/1 to 50/1; (b) partial separation of the compound D from said mixture prepared in step (a) until a residue is obtained, solid at room temperature, wherein the D/Ti ratio ranges from 1.5 to 40, (c) formation of a suspension of said solid organo-oxygenated protic compound D_p , in such a quantity that the molar ratio D_p/D ranges from 0.1 to 1.2 and maintaining the mixture until equilibrium is reached, to form the desired solid component of catalyst.